

FROM DIGITAL SYSTEM USE TO INSTITUTIONAL REPUTATION: THE MEDIATING ROLE OF UNIVERSITY GOVERNANCE IN HIGHER EDUCATION

Hela Latreche¹

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ABSTRACT

Digital Transformation; PROGRES System; University Governance; Institutional Reputation; UTAUT; Higher Education; Algeria.

Original research



This study investigates the impact of actual digital system use on university governance and institutional reputation, focusing on the PROGRES platform at the University Centre of Maghnia, Algeria. Grounded in the Unified Theory of Acceptance and Use of Technology (UTAUT) and Corporate Reputation Theory, the study develops and tests a structural model using quantitative data collected from 210 academic and administrative staff. Partial Least Squares Structural Equation Modeling (PLS-SEM) was conducted using SmartPLS. The findings show that performance expectancy significantly influences behavioral intention, which strongly predicts actual system use. Actual use positively affects university governance, while governance significantly enhances institutional reputation. Mediation analysis confirms that university governance mediates the relationship between actual system use and institutional reputation. However, top management support and effort expectancy have no significant direct effects on behavioral intention. The findings highlight the role of effective digital system use and governance in strengthening institutional reputation in higher education.

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1. INTRODUCTION

The rapid advancement of digital technologies and the paradigms of the Fourth Industrial Revolution have created unprecedented opportunities for Higher Education Institutions (HEIs) to modernize their operational frameworks, enhance administrative and academic services, and respond more effectively to stakeholder expectations (Alenezi, 2023; Kamal et al., 2026). Digital transformation (DT) in higher education is increasingly recognized not merely as an isolated technological upgrade, but as a holistic strategic process that reshapes institutional governance, operational processes, and service delivery (Kamal et al., 2026; Mujahidin et al., 2026). Through the integration of digital administrative platforms, automated data management systems, and interconnected information infrastructures,

universities can streamline administrative procedures, enhance transparency, improve coordination, and support more efficient decision-making (Kyambade et al., 2025; Nweke, 2025). Despite these potential benefits, empirical evidence indicates that higher education institutions continue to face challenges in achieving effective and sustained use of digital systems, particularly in contexts characterized by established administrative routines and ongoing digital transformation (Nicolau, 2026; Singun, 2025). In developing and emerging higher education contexts, these challenges may be particularly significant where traditional administrative practices remain deeply embedded in institutional processes (Shahi & Chaudhary, 2025; Singun, 2025).

To explain technology adoption and use, Information Systems (IS) research has extensively employed acceptance models such as the Unified Theory of

¹ Corresponding author: Hela Latreche
Email: h.latreche@cu-maghnia.dz

Acceptance and Use of Technology (UTAUT), which emphasizes individual perceptions such as performance expectancy and effort expectancy as important determinants of behavioral intention and technology use (Venkatesh et al., 2003). However, the organizational implementation of digital administrative systems extends beyond individual acceptance and raises questions about how users' intentions translate into actual system use and, ultimately, into broader institutional outcomes. In this respect, organizational conditions such as top management support may shape users' willingness to engage with digital systems, while perceived performance and effort requirements may influence behavioral intention (Almaiah et al., 2022; Mujahidin et al., 2026; Nweke, 2025). Examining these relationships is particularly relevant in public higher education institutions, where the implementation of digital administrative systems often takes place within institutionally mandated frameworks.

Within the Algerian higher education sector, the Ministry of Higher Education and Scientific Research (MESRS) has mandated the implementation of the PROGRES system (Progrès Progiciel de Gestion Intégré pour les Établissements d'Enseignement Supérieur). As an integrated digital platform used for the management of administrative and academic processes in Algerian public higher education institutions, PROGRES provides an appropriate empirical context for examining the transition from technology acceptance to actual system use and its organizational consequences. Unlike voluntary consumer technologies, the use of such institutional systems occurs within a formal organizational environment, making it particularly relevant to examine whether behavioral intention and actual use translate into improvements in university governance.

From a strategic management perspective, the organizational value of digital transformation may extend beyond system adoption itself. The benefits generated through actual use of integrated digital systems can materialize through improvements in governance practices, including transparency, accountability, coordination, information management, and decision-making efficiency (Kamal et al., 2026; Nweke, 2025). In this context, the actual use of the PROGRES system can be viewed as an operational mechanism through which traditional administrative processes are increasingly supported by integrated and data-driven digital practices. Improvements in university governance may, in turn, contribute to stronger institutional reputation by signaling organizational effectiveness, transparency, reliability, and responsiveness to internal and external stakeholders (Abaev et al., 2022; Al-Dmour et al., 2025; Fombrun, 1996). Accordingly, the relationship between digital system use and institutional reputation may not necessarily be direct; rather, university governance may constitute an important mechanism through which digital transformation generates broader institutional value.

Nevertheless, despite the growing body of literature on digital transformation and technology adoption in higher

education, several knowledge gaps remain. First, previous research has predominantly focused on technology acceptance, e-learning adoption, or behavioral intention, while the organizational consequences of actual use of integrated administrative systems remain comparatively under-explored (Kyambade et al., 2025; Proietti, 2026). Second, limited empirical evidence explains how actual use of integrated administrative systems can create institutional value by strengthening university governance and, consequently, institutional reputation (Al-Dmour et al., 2025). Third, empirical evidence remains limited regarding the relationships between organizational support, technology acceptance factors, behavioral intention, actual system use, university governance, and institutional reputation within emerging higher education contexts, particularly in university centers that operate within public administrative environments (Shahi & Chaudhary, 2025; Singun, 2025).

To address these gaps, the present study empirically examines a model linking top management support, performance expectancy, and effort expectancy to behavioral intention, behavioral intention to the actual use of the PROGRES system, and actual system use to university governance and institutional reputation. In addition, the study examines the mediating role of university governance in the relationship between actual PROGRES system use and institutional reputation at the University Center of Maghnia, Algeria. Specifically, the study addresses the following research questions:

RQ1: To what extent do top management support, performance expectancy, and effort expectancy influence behavioral intention to use the PROGRES system?

RQ2: To what extent does behavioral intention influence actual system use, and how does actual use affect university governance and institutional reputation?

RQ3: Does university governance mediate the relationship between actual use of the PROGRES system and institutional reputation? Unlike previous studies that have primarily examined technology acceptance or behavioral intention in isolation, this study shifts attention toward the broader organizational consequences of actual digital system use by empirically examining the links between technology-related antecedents, behavioral intention, actual system use, university governance, and institutional reputation. The study therefore connects the technology acceptance perspective with university governance and corporate reputation, while extending the analysis from individual-level acceptance outcomes toward organizational-level consequences. From a managerial perspective, the findings provide insights for university leaders and MESRS decision-makers regarding how digital administrative systems can be leveraged not merely to promote system use, but also to strengthen governance practices and institutional reputation. More broadly, the study contributes empirical evidence from an emerging higher education context to the discussion of how integrated digital platforms can generate organizational value beyond technology adoption itself (Nicolau, 2026; Nweke, 2025).

2. LITERATURE REVIEW

Exploring the complex dynamics of digital transformation in higher education requires a comprehensive theoretical lens that integrates individual technology adoption with broader institutional outcomes. Grounded in established frameworks—such as the Unified Theory of Acceptance and Use of Technology (UTAUT) (Venkatesh et al., 2003) and institutional governance models (Mujahidin et al., 2026)—the conceptual framework of this study posits that technology adoption is a multi-stage process. As illustrated in the research model (Figure 1), individual behavioral intentions are shaped by core technological and leadership determinants (Top Management Support, Performance Expectancy, and Effort Expectancy), which subsequently translate into actual system use. Furthermore, this study conceptualizes actual system utilization as a strategic catalyst that enhances university governance, ultimately reinforcing institutional reputation within the empirical context of the University Center of Maghnia.

2.1 Top Management Support

Top management support is broadly conceptualized as the degree to which senior executive leadership demonstrates active engagement, allocates adequate financial and technical resources, and establishes strategic directives for information system adoption (Almaiah et al., 2022). A significant body of empirical research in Information Systems (IS) and higher education management demonstrates a strong, statistically significant positive relationship between top management support and users' behavioral intention to adopt new digital platforms (Almaiah et al., 2022; Sibassaha et al., 2025). These studies argue that visible commitment from institutional leadership alleviates user anxiety, provides operational legitimacy, and fosters a conducive climate for technological adaptation.

Conversely, a critical stream of literature reveals that top management support does not universally or directly translate into positive behavioral intention (Nicolau, 2026; Singun, 2025). Empirical findings from complex public-sector environments indicate that when leadership support is perceived as top-down managerial coercion rather than supportive enablement, it can trigger psychological reactance, administrative fatigue, or passive compliance among academic staff (Nicolau, 2026). The divergence in these empirical findings is primarily attributed to variations in leadership style (transformational versus authoritarian), organizational structure (decentralized versus rigid bureaucracy), and the degree of end-user involvement during system planning.

This empirical inconsistency is particularly pronounced when comparing developed nations with emerging economies. In developed countries, leadership directives are backed by robust technological infrastructure and specialized IT support teams. In

contrast, higher education institutions in developing nations frequently face budget constraints, inadequate network readiness, and inconsistent digital policies (Shahi & Chaudhary, 2025; Singun, 2025). Consequently, findings from developed contexts cannot be directly generalized to emerging academic environments without empirical validation. Within the Algerian higher education sector—and specifically at newly established regional institutions such as the University Center of Maghnia—administrative and academic staff heavily rely on top management to provide technical infrastructure, structured training workshops, and clear operational guidelines for the mandatory PROGRES platform. Thus, leadership support serves as a fundamental catalyst in forming positive behavioral intentions to adopt the system. Based on this synthesis, the following hypothesis is formulated:

- H1: Top management support has a positive impact on behavioral intention to use the PROGRES system.

2.2 Performance Expectancy

Rooted in the Unified Theory of Acceptance and Use of Technology (UTAUT), performance expectancy is defined as the degree to which an individual believes that using a system will enhance their job performance and operational efficiency (Venkatesh et al., 2003). A vast body of literature confirms that performance expectancy is the most consistent and powerful direct predictor of behavioral intention across diverse technological and organizational contexts (Almaiah et al., 2022; Venkatesh et al., 2003). When personnel perceive that a system saves time, improves data accuracy, and streamlines task execution, their motivation to adopt it increases substantially.

Despite this theoretical consensus, several empirical studies in developing higher education settings have found performance expectancy to have a diminished or statistically non-significant effect on behavioral intention (Shahi & Chaudhary, 2025). Researchers attribute this contradiction to systemic operational barriers: when users experience frequent server downtime, software bugs, or mismatched administrative modules, the theoretical utility of the software fails to materialize, leading to skepticism and reduced behavioral intention regardless of initial expectations (Shahi & Chaudhary, 2025; Singun, 2025).

This disparity underscores the necessity of testing technology acceptance frameworks in developing nations. While performance expectancy operates under optimal infrastructure in developed countries, its effect in emerging economies depends heavily on system reliability and local implementation quality (Kayanja et al., 2025). In the context of the PROGRES platform at the University Center of Maghnia, academic and administrative staff must manage grade entry, student enrollments, and pedagogical records. When staff recognize that PROGRES reduces administrative burdens and accelerates task completion compared to

manual processing, their intention to utilize the platform will be significantly strengthened. Consequently, the following hypothesis is proposed:

- H2: Performance expectancy has a positive impact on behavioral intention to use the PROGRES system.

2.3 Effort Expectancy

Effort expectancy refers to the degree of ease associated with the use of an information system (Venkatesh et al., 2003). Numerous empirical studies demonstrate that user-friendly interfaces, intuitive navigation, and low cognitive effort positively predict behavioral intention to adopt digital systems (Almaiah et al., 2022; Shahi & Chaudhary, 2025). When software complexity is minimized, users experience lower anxiety and higher self-efficacy, encouraging early platform acceptance.

In contrast, other empirical investigations report that effort expectancy loses its statistical significance over time or under mandatory usage conditions (Venkatesh et al., 2003; Singun, 2025). Original UTAUT formulations and subsequent longitudinal studies show that as users gain system experience, the influence of effort expectancy wears off, whereas performance expectancy remains dominant. Furthermore, in mandatory enterprise system rollouts, employees are required to use the system regardless of perceived complexity, causing effort expectancy to have a secondary or negligible impact on usage intentions (Venkatesh et al., 2003).

The generalizability of these findings to developing nations remains questionable due to widespread variations in digital literacy among university personnel (Singun, 2025). In developing countries, digital skill gaps among administrative personnel make perceived ease of use a persistent and critical determinant of system acceptance (Shahi & Chaudhary, 2025; Singun, 2025). Within the Algerian context, PROGRES integrates multiple complex administrative sub-modules. For staff at the University Center of Maghnia, clear interface design, user guidance, and minimal operational effort are expected to play a decisive role in fostering positive behavioral intentions to engage with the system. Hence, we hypothesize:

- H3: Effort expectancy has a positive impact on behavioral intention to use the PROGRES system.

2.4 Behavioral Intention

Under core IS frameworks including TAM and UTAUT, behavioral intention serves as the key direct psychological antecedent to actual system use (Davis, 1989; Venkatesh et al., 2003). Substantial empirical evidence supports this linear relationship, establishing that higher behavioral intention directly drives higher frequency, duration, and feature diversity of actual software utilization in organizational environments (Almaiah et al., 2022; Shahi & Chaudhary, 2025). However, IS literature also documents a well-known phenomenon termed the "intention-behavior gap"

(Ajzen, 1991). Empirical studies in educational settings have shown that strong behavioral intention does not automatically lead to high levels of actual system use (Singun, 2025). This discrepancy arises when external situational constraints—such as unexpected technical disruptions, lack of operational facilitating conditions, or administrative bottlenecks—prevent users from executing their intended usage behavior (Ajzen, 1991; Singun, 2025).

This gap is particularly critical in developing nations, where infrastructural instability often prevents intended technology usage from becoming routinized actual behavior (Shahi & Chaudhary, 2025). In Algerian public universities, although the Ministry of Higher Education and Scientific Research (MESRS) has mandated the use of PROGRES, actual system use varies in depth and consistency among administrative units. At the University Center of Maghnia, moving beyond superficial compliance to deep, routinized actual use of the PROGRES system requires a genuine underlying behavioral intention among users. Accordingly, the following hypothesis is state:

- H4: Behavioral intention to use the PROGRES system has a positive impact on actual use of the PROGRES system.

2.5 Actual use of the PROGRES system and University Governance

University governance encompasses the structural mechanisms, transparency protocols, accountability frameworks, and data-driven decision-making processes that direct institutional operations (Kamal et al., 2026; Mujahidin et al., 2026). A growing body of empirical literature indicates that actual use of integrated enterprise systems (ERP platforms) significantly enhances university governance by automating administrative workflows, eliminating data silos, improving record accuracy, and promoting managerial transparency (Kayanja et al., 2025; Mujahidin et al., 2026; Nweke, 2025).

Conversely, critical governance literature cautions that actual software usage does not automatically guarantee good governance (Nicolau, 2026; Proietti, 2026). Studies highlight that without concurrent institutional reforms, technology usage can result in "digital bureaucracy," data privacy vulnerabilities, or superficial automation that masks underlying administrative inefficiencies. The variance in empirical outcomes stems from differences in institutional digital maturity and the alignment between software features and governance regulations (Nicolau, 2026).

In developing countries, integrated platforms are primarily adopted to curb administrative errors, prevent document tampering, and establish centralized control (Nweke, 2025; Shahi & Chaudhary, 2025). In the Algerian higher education context, actual daily utilization of PROGRES across academic, financial, and administrative departments serves as the core mechanism to enforce standardized governance, improve

transparency, and accelerate administrative decision-making at the University Center of Maghnia. Thus, the following hypothesis is proposed:

- H5: Actual use of the PROGRES system has a positive impact on university governance.

2.6 Institutional reputation

Grounded in Corporate Reputation Theory (Fombrun, 1996), institutional reputation is defined as the collective, cumulative evaluation of an organization's past actions, operational reliability, and service quality held by internal and external stakeholders over time (Al-Dmour et al., 2025). Extensive strategic management literature demonstrates that high-quality institutional governance—characterized by operational efficiency, administrative fairness, transparency, and accountability—strongly elevates institutional reputation and stakeholder trust (Abaev et al., 2022; Al-Dmour et al., 2025; Luque-Martínez et al., 2026).

Nevertheless, some empirical studies indicate that effective internal governance does not always yield an immediate enhancement of external reputation (Abaev et al., 2022; Luque-Martínez et al., 2026). Scholars argue that reputation is heavily influenced by external noise, media perceptions, global ranking metrics, and historical brand prestige, which may obscure internal governance improvements, particularly in smaller or younger institutions (Luque-Martínez et al., 2026).

This dynamic is vital for public HEIs in emerging economies, where historical public perceptions of administrative inefficiency can hinder institutional prestige (Al-Dmour et al., 2025). For emerging institutions like the University Center of Maghnia, demonstrating transparent, highly efficient, and accountable university governance represents the most effective strategic signal to build credibility among students, faculty, the ministry, and the local community. Based on Corporate Reputation Theory, the following hypothesis is formulated:

- H6: University governance has a positive impact on institutional reputation.

2.7 The Mediating Role of University Governance

Strategic management theory asserts that digital technologies do not generate competitive advantage or long-term institutional reputation directly; rather, technology creates strategic value by reengineering internal organizational mechanisms (Al-Dmour et al., 2025; Kamal et al., 2026). Emerging empirical research supports this indirect mechanism, showing that actual software use acts as an operational driver that modernizes governance structures (the mediator), which in turn enhances stakeholder trust and builds institutional reputation (Al-Dmour et al., 2025; Mujahidin et al., 2026).

However, the literature lacks complete consensus on the single-mediator path of governance. Other studies have tested alternative mediating constructs, such as

educational quality or operational efficiency in isolation (Al-Dmour et al., 2025), revealing that if structural governance alignment is absent, system usage fails to translate into external strategic value. This highlights a clear theoretical gap regarding the precise structural mechanisms through which enterprise system usage builds institutional reputation.

More importantly, little empirical evidence explains the mechanism through which actual use of integrated administrative systems creates strategic value by enhancing university governance and, consequently, institutional reputation in emerging economies (Al-Dmour et al., 2025; Nweke, 2025). In the Algerian higher education context, actual use of the PROGRES platform at the University Center of Maghnia is expected to first transform daily administrative workflows, establishing transparent and accountable governance. This enhanced university governance then serves as the critical organizational bridge that elevates the center's reputation. Therefore, we state the strategic mediation hypothesis as follows:

- H7: University governance mediates the relationship between actual use of the PROGRES system and institutional reputation.

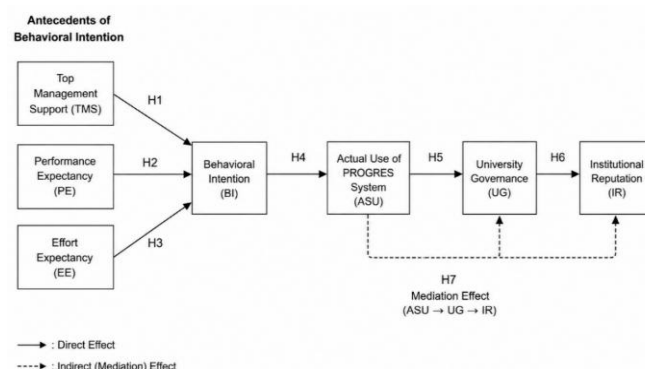


Figure 1. Conceptual model

Figure 1 presents conceptual model of the suggested research.

3. METHODOLOGY

3.1 Research Design and Context

To achieve the primary objective of investigating the impact of actual system use of the PROGRES platform on university governance and institutional reputation, this study adopts a quantitative, cross-sectional field research design. Quantitative research design is highly effective for examining structural relationships, testing established hypotheses, and generalizing empirical findings across organizational settings (Creswell & Poth, 2018).

The empirical investigation was conducted at the University Center of Maghnia (Centre Universitaire de

Maghnia, Algeria). As an emerging regional higher education institution operating within the centralized national framework of the Algerian Ministry of Higher Education and Scientific Research (MESRS), the University Center of Maghnia represents an ideal empirical setting. Unlike older, larger universities with extensive legacy resources, regional university centers encounter unique structural, infrastructural, and operational challenges while implementing mandatory nationwide enterprise platforms such as the PROGRES system (Progrès Progiciel de Gestion Intégré). Evaluating system use and its organizational outcomes in this specific operational context provides valuable insights into how developing academic institutions leverage digital tools to enhance governance and build long-term institutional reputation.

3.2 Population, Sampling, and Data Collection

The target population for this study comprised the entire active body of academic faculty members and administrative personnel at the University Center of Maghnia in Algeria, who have direct, routine interaction with the various modules of the PROGRES system. Specifically, the total population (N) consists of 200 academic faculty members and 126 administrative staff members, resulting in a comprehensive organizational population of 326 individuals. Given the manageable size of the total population, a complete target survey distribution was administered across all academic and administrative departments (similar to census-based approaches in higher education research, e.g., Nweke, 2025). Out of the distributed questionnaires, a total of 210 valid and complete responses were successfully retrieved and retained for final empirical analysis after a

rigorous data-cleaning process that eliminated uncompleted or unengaged responses. This sample size of 210 robustly exceeds the minimum requirements for variance-based Structural Equation Modeling (PLS-SEM), fully complying with statistical power recommendations and the widely accepted 10-case rule per structural path (Hair et al., 2017). The demographic analysis of 210 respondents – presented in Table 1 – shows that 112 (53.3%) were male and 98 (46.7%) were female, and that the majority were between 30 and 40 years old (64.3%). Concerning the education level, the vast majority of respondents held advanced academic degrees, with Ph.D. degree holders representing 62.4%. Additionally, most respondents had professional experience ranging between 5 and 10 years (40.0%).

3.3 Measurement Development and Instruments

The questionnaire was based on previously validated measurement scales. More specifically, Top Management Support was adapted from Almaiah et al. (2022) measured using five items. Performance Expectancy (five items) and Effort Expectancy (five items) were adapted from Venkatesh et al. (2003). Behavioral Intention was measured using three items adapted from Davis (1989) and Venkatesh et al. (2003). Actual System Use was adapted from Almaiah et al. (2022) and Shahi and Chaudhary (2025) and measured using three items. University Governance was measured using five items adapted from Kamal et al. (2026) and Mujahidin et al. (2026). Institutional Reputation was adapted from Fombrun (1996), Abaev et al. (2022), and Al-Dmour et al. (2025) and measured using five items. All items were assessed using a five-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree) Table 1.

Table 1. Respondent profile

Variable	Responses choice	Frequency	Percent
Gender	Male	112	53.3
	Female	98	46.7
Age	-30years	4	1.9
	30-40 years	135	64.3
	40-50 years	49	23.3
	+50 years	22	10.5
Education level	Secondary Education	17	8.1
	Technician Superior	7	3.3
	Bachelor's Degree	19	9
	Master's Degree	36	17.1
	Ph.D. Degree	131	62.4
Professional experience	-5	38	18.1
	5-10	84	40
	10-15	32	15.2
	15+	56	26.7

4. RESULTS

To empirically test the proposed conceptual model and examine the structural relationships between variables, this study utilised Partial Least Squares Structural Equation Modeling (PLS-SEM) via SmartPLS 4 (Hair et al., 2017). Following standard methodological guidelines for PLS-SEM, a two-stage analytical procedure was implemented, comprising the evaluation of the measurement model followed by the assessment of the structural model (Henseler et al., 2015).

4.1 Measurement Model Assessment

The first step of our analysis consisted of simultaneously evaluating the measurement and structural models in SmartPLS (Hair et al., 2017). The reliability and convergent validity of the constructs were assessed using indicator outer loadings, Cronbach's alpha, composite reliability (CR), and average variance extracted (AVE). During the assessment of the measurement model, indicators with outer loadings below the recommended threshold of 0.50 were removed to improve the psychometric properties of the constructs (Hair et al., 2017). After eliminating these indicators, the retained items exhibited outer loadings ranging from 0.548 to 0.961.

Although Cronbach's alpha is considered a conservative estimate of internal consistency in PLS-SEM, composite reliability is regarded as the preferred reliability criterion (Hair et al., 2017). The results demonstrated satisfactory internal consistency, with Cronbach's alpha values ranging from 0.623 to 0.878 and composite reliability values ranging from 0.778 to 0.908 (Table 2). Convergent validity was also established, as all AVE values exceeded the recommended threshold of 0.50, ranging from 0.553 to 0.831 (Fornell & Larcker, 1981). Furthermore, all variance inflation factor (VIF) values were below the recommended cutoff value of 3.3, indicating that multicollinearity was not a concern and that the model was free from common method bias (Kock, 2015).

Discriminant validity was assessed using the Fornell–Larcker criterion. According to this criterion, the square root of the average variance extracted (AVE) for each construct should be greater than its correlations with all other constructs (Fornell & Larcker, 1981). As shown in Table 3, the diagonal elements (i.e., the square roots of the AVE) were higher than the corresponding inter-construct correlations in all cases. Therefore, the Fornell–Larcker criterion was satisfied, confirming that each construct was empirically distinct from the others and that discriminant validity was successfully established (Table 3).

Table 2. Measurement model assessment

Dimension	Items	Loading	α Cronbach	CR	AVE
Actual Use Of The PROGRES System	USE1	0,904	0,798	0,908	0,831
	USE2	0,920			
Behavioral Intention	BI1	0,876	0,623	0,841	0,725
	BI3	0,826			
Effort Expectancy	EE1	0,696	0,833	0,878	0,592
	EE2	0,726			
	EE3	0,879			
	EE4	0,795			
	EE5	0,737			
Performance Expectancy	PE1	0,879	0,898	0,928	0,762
	PE2	0,864			
	PE4	0,853			
	PE5	0,896			
Top Management Support	TMS1	0,961	0,681	0,778	0,553
	TMS4	0,548			
	TMS5	0,658			
Institutional Reputation	IR1	0,698	0,718	0,837	0,633
	IR2	0,865			
	IR5	0,815			
University Governance	UG1	0,788	0,671	0,803	0,576
	UG2	0,798			
	UG4	0,687			

Table 3. Discriminant validity

	1	2	3	4	5	6	7
1.Actual Use Of The PROGRES System	0,912						
2.Behavioral Intention	0,447	0,852					
3.Effort Expectancy	0,424	0,329	0,769				
4.Performance Expectancy	0,379	0,404	0,681	0,873			
5.Top Management Support	0,231	0,229	0,163	0,357	0,744		
6.Institutional Reputation	0,066	0,176	0,408	0,208	-0,027	0,796	
7.University Governance	0,291	0,230	0,329	0,305	0,099	0,508	0,759

4.2 Structural model assessment and hypothesis testing

The structural model was evaluated using the bootstrapping procedure in SmartPLS 4 to examine the significance of the hypothesized relationships. As presented in Table 4, four out of the six proposed **hypotheses** were supported. Specifically, performance expectancy had a significant positive effect on behavioral intention ($\beta = 0.287$, $t = 2.847$, $p < 0.01$), supporting H2, whereas the effects of top management support ($\beta = 0.107$, $t = 0.770$) and effort expectancy ($\beta = 0.116$, $t = 1.232$) on behavioral intention were not statistically significant, leading to the rejection of H1 and H3, respectively.

Table 4. Summary of the hypothesis testing

	β	T Statistics	Result
H1: Top management support $\rightarrow$ Behavioral Intention	0,107	0,770	Rejected
H2: Performance Expectancy $\rightarrow$ Behavioral Intention	0,287**	2,847	Supported
H3: Effort Expectancy $\rightarrow$ Behavioral Intention	0,116	1,232	Rejected
H4: Behavioral Intention $\rightarrow$ Actual Use of the PROGRES System	0,447***	6,304	Supported
H5: Actual Use of the PROGRES System $\rightarrow$ university governance	0,291***	4,207	Supported
H6: university governance $\rightarrow$ institutional reputation	0,508***	9,930	Supported
R ²	25.8%		

* $p < 0.05$ ** $p < 0.01$ *** $p < 0.001$

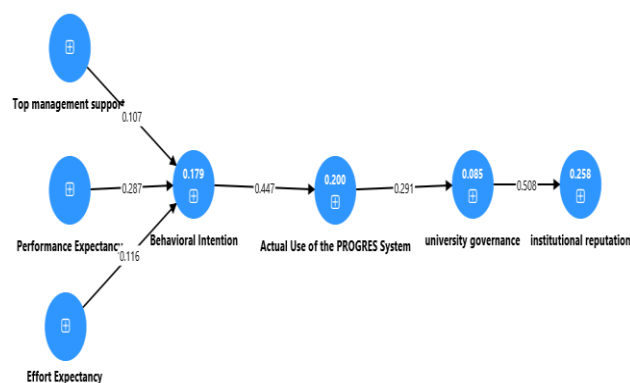


Figure 2. Structural Model

4.3 Mediation test

The mediating role of university governance in the relationship between the actual use of the PROGRES system and institutional reputation was examined using the bootstrapping procedure in SmartPLS by estimating

Furthermore, behavioral intention exerted a significant positive influence on the actual use of the PROGRES system ($\beta = 0.447$, $t = 6.304$, $p < 0.001$), thereby supporting H4. The results also revealed that the actual use of the PROGRES system had a significant positive effect on university governance ($\beta = 0.291$, $t = 4.207$, $p < 0.001$), confirming H5. Finally, university governance was found to have a strong positive effect on institutional reputation ($\beta = 0.508$, $t = 9.930$, $p < 0.001$), providing support for H6 (Table 4). Overall, the structural model explained 25.8% of the variance in the endogenous construct(s), indicating a moderate level of explanatory power according to the guidelines proposed by Hair et al. (2021). Structural Model is presented on Figure 2.

the specific indirect effects (Hair et al., 2021). The significance of the indirect effect was assessed based on the bootstrapped estimates.

Table 5. Mediation analysis results

	β	T Statistics	Result
H7: Actual Use of the PROGRES System $\rightarrow$ university governance $\rightarrow$ institutional reputation	0,148	3,922	supported

As seen in Table 5, The mediating role of university governance in the relationship between the actual use of the PROGRES system and institutional reputation was examined using the bootstrapping procedure in SmartPLS by estimating the specific indirect effects (Hair et al., 2021). As shown in Table 5, the indirect effect was positive and statistically significant ($\beta = 0.148$, $t = 3.922$, $p < 0.001$). Therefore, H7 was supported, indicating that the actual use of the PROGRES system enhances institutional reputation indirectly through improved university governance (Table 5).

5. DISCUSSION AND IMPLICATIONS

5.1 Discussion

The empirical findings of this study provide comprehensive insights into the structural relationships linking digital transformation antecedents, actual system adoption, university governance, and institutional reputation within the specific context of the University Center of Maghnia in Algeria. By interpreting the results of the structural equation modeling (PLS-SEM), the discussion evaluates each hypothesis in light of contemporary higher education and technology adoption literature.

The structural path analysis reveals that Top Management Support did not exert a statistically significant direct effect on behavioral intention. Although executive backing is widely acknowledged as a foundational driver in corporate and large-scale public initiatives (Almaiah et al., 2022), within the specific setting of higher education institutions where academic and professional autonomy prevail, top-down administrative backing alone may not automatically translate into personal readiness unless paired with operational autonomy and peer collaboration (Proietti, 2026). Furthermore, as noted in critical literature, when top-down support is perceived as managerial pressure rather than direct operational enablement, its direct motivational impact on individual intentions can attenuate (Nicolau, 2026; Singun, 2025). Conversely, Performance Expectancy demonstrated a strong, statistically significant positive impact on behavioral intention. This confirms that academic and administrative staff are profoundly motivated to adopt the PROGRES system when they perceive clear operational benefits, improved data accuracy, and enhanced job productivity. This finding corroborates the foundational assumptions of the Unified Theory of Acceptance and Use of Technology (UTAUT) (Feng et al., 2025; Venkatesh et al., 2003; On the other hand, the structural path from Effort Expectancy to behavioral intention was statistically insignificant, resulting in the rejection of. This indicates that the perceived ease of use or technical complexity of the PROGRES system did not act as a primary determinant of user intention in this sample. Given that the respondents are predominantly highly qualified professionals and advanced degree holders (as reflected in the demographic profile), interface complexity or learning effort is largely superseded by the functional utility and performance outcomes of the platform, aligning with longitudinal UTAUT observations where effort-related barriers diminish over time (Venkatesh et al., 2003).

The empirical findings confirm that Behavioral Intention strongly and positively predicts the Actual Use of the PROGRES System. This validates core information systems theories, demonstrating that individual cognitive readiness successfully translates into routine, tangible system engagement within university operations (Davis, 1989; Shahi & Chaudhary, 2025). Advancing toward

macro-level institutional outcomes, Actual System Use significantly enhanced University Governance. Routine reliance on the automated PROGRES platform streamlines administrative workflows, eliminates data silos, improves decision-making accuracy, and enforces transparency, aligning with recent higher education governance frameworks (Mujahidin et al., 2026; Nweke, 2025). Furthermore, University Governance exerted a powerful, direct positive impact on Institutional Reputation. Transparent, efficient, and digitally optimized governance serves as a vital signal of organizational credibility and institutional excellence to external stakeholders, prospective students, and the academic community, strongly corroborating Corporate Reputation Theory and recent empirical work (Fombrun, 1996; Al-Dmour et al., 2025).

The mediation analysis confirms that University Governance significantly and positively mediates the relationship between actual system use and institutional reputation. This empirical evidence highlights a crucial strategic mechanism: technology adoption alone does not automatically build public prestige or external reputation. Instead, the true strategic value of digital transformation is unlocked when enterprise systems are systematically channeled through robust internal governance practices to foster institutional trust, transparency, and long-term reputation (Al-Dmour et al., 2025; Mujahidin et al., 2026).

5.2 Implications

The findings of this empirical study carry profound implications for both academic theory and the strategic management of higher education institutions, particularly within emerging academic environments.

5.2.1 Theoretical Implications

From a theoretical standpoint, this study contributes to the literature on technology adoption, higher education governance, and corporate reputation by extending the Unified Theory of Acceptance and Use of Technology (UTAUT) beyond individual-level behavioral outcomes into macro-level institutional achievements. First, by empirically validating the pivotal role of Performance Expectancy while addressing the non-significance of Top Management Support and Effort Expectancy in specific mandatory public service settings, the study enriches the ongoing discourse surrounding boundary conditions in technology acceptance models (Venkatesh et al., 2003; Shahi & Chaudhary, 2025). Second, the study bridges information systems research with Corporate Reputation Theory (Fombrun, 1996) by establishing that operationalizing enterprise systems like PROGRES directly strengthens internal university governance, which in turn elevates institutional reputation. Finally, the empirical confirmation of the mediating role of university governance addresses a vital theoretical gap, proving that technology does not build prestige directly, but rather through structural governance enhancements (Al-Dmour et al., 2025;

Mujahidin et al., 2026). Collectively, these findings demonstrate that the organizational value of digital transformation in higher education extends beyond technology adoption itself to encompass governance quality and institutional reputation

5.2.2 Managerial Implications

Practically, the findings of this study provide valuable guidance for university leaders, policymakers, and administrative decision-makers seeking to maximize the benefits of digital transformation in higher education institutions. The insignificant effect of top management support suggests that mandatory administrative directives alone may not be sufficient to strengthen employees' behavioral intentions toward using the PROGRES system. Instead, university leaders should prioritize enhancing the system's perceived usefulness by improving its functionality, integrating administrative processes, and clearly demonstrating its contribution to employees' daily tasks. Since performance expectancy emerged as the only significant predictor of behavioral intention, greater emphasis should be placed on communicating the practical benefits and performance gains associated with the effective use of the system. Furthermore, the findings demonstrate that university governance plays a pivotal mediating role in translating the actual use of the PROGRES system into enhanced institutional reputation. Consequently, digital transformation initiatives should extend beyond increasing system adoption rates to strengthening governance practices through improved transparency, standardized administrative procedures, accountability, and evidence-based decision-making. For Algerian higher education institutions, the success of digital transformation should therefore be evaluated not only by the extent of technology utilization but also by its contribution to governance quality and the enhancement of institutional reputation among internal and external stakeholders.

6. LIMITATIONS AND CONCLUSION

Despite providing valuable empirical insights into the structural relationships connecting digital transformation, university governance, and institutional reputation, this study acknowledges several methodological and contextual limitations that open avenues for future research. First, the empirical investigation employed a cross-sectional research design,

gathering data from the University Center of Maghnia at a single point in time. While this approach is standard in information systems adoption research, it limits causal inferences over extended periods. Future studies could adopt longitudinal or experimental designs to track the dynamic evolution of digital system usage and its long-term reputational impacts (Venkatesh et al., 2003). Second, the study focused specifically on a single public higher education institution in Algeria—namely, the University Center of Maghnia—examining the mandatory adoption of the PROGRES platform. Consequently, caution must be exercised when generalizing these findings to diverse regional, private, or international academic settings where organizational structures, digital maturity, and institutional policies differ. Subsequent research should expand the scope by conducting multi-institution comparative studies across different national contexts (Mujahidin et al., 2026). Finally, while this framework integrated core dimensions from UTAUT and institutional governance, future investigations could incorporate additional boundary conditions—such as organizational culture, digital resistance barriers, or inter-institutional collaboration frameworks—to capture a more comprehensive perspective of digital transformation in higher education.

In conclusion, this study explored the strategic role of actual digital system adoption in shaping university governance and strengthening institutional reputation. Grounded in the Unified Theory of Acceptance and Use of Technology and Corporate Reputation Theory, the empirical findings validate a structured, multi-stage mechanism within the Algerian higher education sector. The results demonstrate that performance expectancy significantly drives behavioral intentions, which in turn strongly predict the actual use of the PROGRES system. Furthermore, empirical evidence confirms that actual system utilization acts as a powerful operational driver that enhances university governance. Crucially, the findings establish that university governance significantly mediates the relationship between actual system adoption and institutional reputation.

Ultimately, this study highlights that embracing digital transformation in higher education is not merely a technical compliance requirement or an isolated administrative upgrade. Rather, true strategic value is unlocked when digital tools are systematically integrated into robust governance practices to foster transparency, accountability, and long-term institutional prestige among internal and external stakeholders (Al-Dmour et al., 2025; Nweke, 2025).

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Hela Latreche

LEPPESE Laboratory, Department
of Economic Sciences, University
Centre of Maghnia. Algeria.

h.latreche@cu-maghnia.dz

ORCID: 0000-0003-0408-7927
